

APRIL/MAY 2024

**BABC15C/FABC15C/CABC15C —  
BIOCHEMISTRY – I**

Time : Three hours

Maximum : 75 marks



**SECTION A — (10 × 2 = 20 marks)**

Answer ALL the questions.

1. What is aldose and ketose?
2. Is maltose a reducing sugar?
3. What are essential amino acids?
4. At what point does the isoelectric point or pI occur?
5. What are proteins made of?
6. What is the role of NaCl in salting out effect?
7. How does emulsification occur?
8. Give examples for bile acids.
9. Define Chargaff's rule.
10. Explain about Codons.

SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions.

11. (a) What are the Haworth structure of monosaccharides? Explain.

Or

- (b) Discuss the structure of Starch.

12. (a) What are the five classes of amino acids? Explain.

Or

- (b) Analyze the principle behind Xanthoproteic and Morner test.

13. (a) Discuss the formation of peptide bond.

Or

- (b) Explain denaturation of protein.

14. (a) Give an account on Saponification.

Or

- (b) What are lipoproteins? Explain its types.

15. (a) Discuss the Clover leaf model of tRNA.

Or

- (b) What are the three post transcriptional modifications? Explain.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain any two disaccharides with their structure and function.

17. Elaborate on the properties of Amino Acids.

18. How are proteins classified on the basis of molecular shape, solubility and size?

19. Classify Lipids.

20. Discuss the Watson and Crick model of DNA double helix.